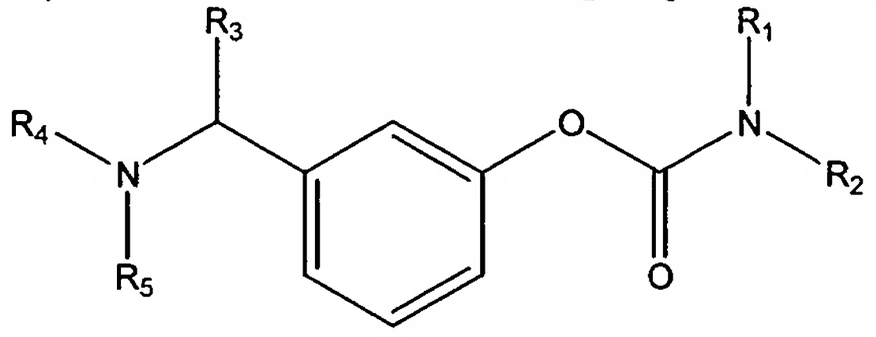
Amendments to the Claims:

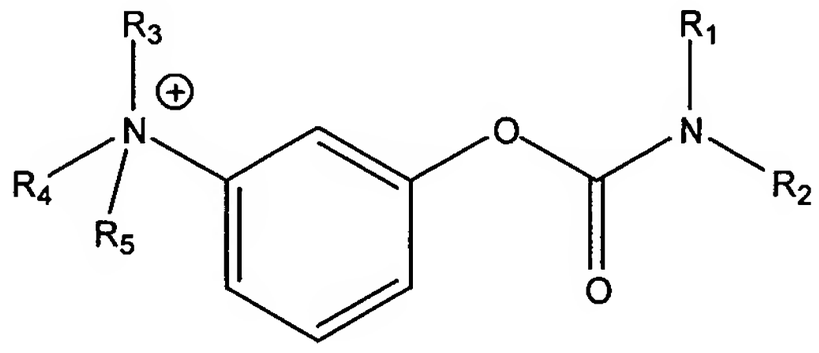
The Claim Listing below will replace all prior versions of the claims in the application:

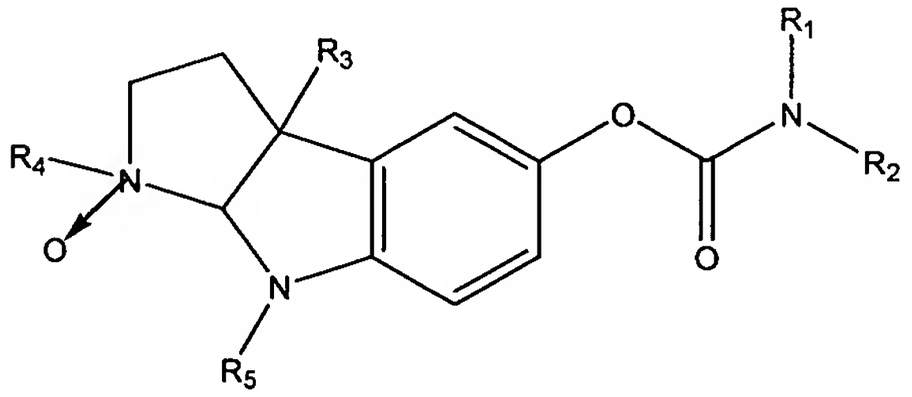
Claim Listing

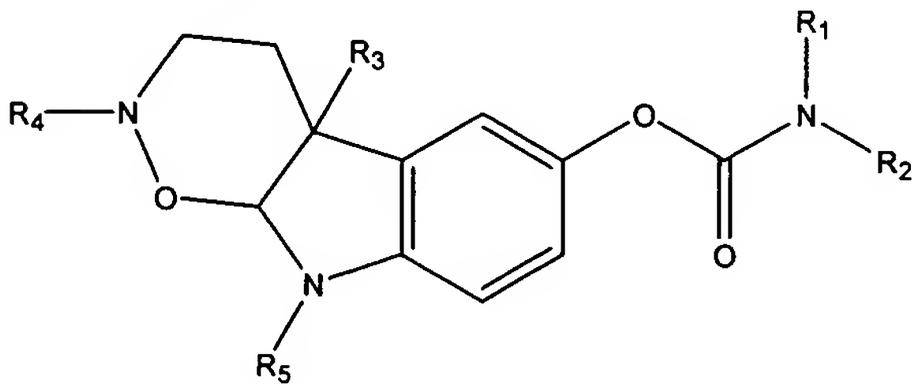
1.- 8. (Cancelled)

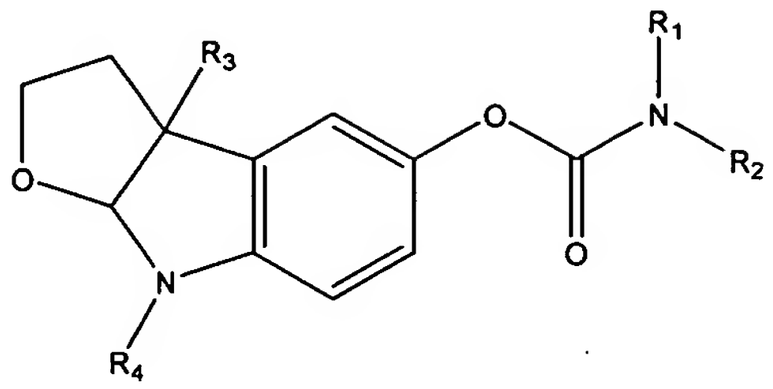
9. (Currently amended) The ~~carbamoyl ester~~ method of Claim ~~8~~25, wherein the carbamoyl ester is selected from the group consisting of:



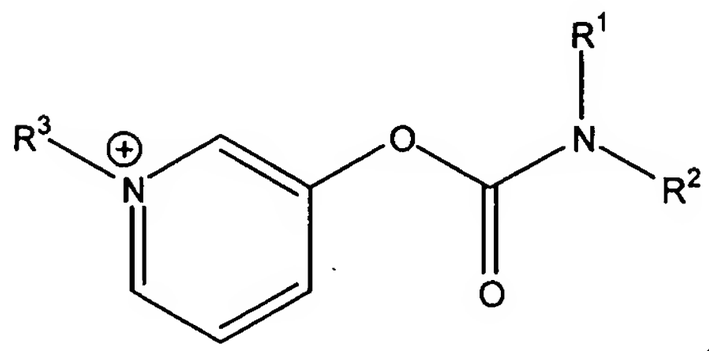








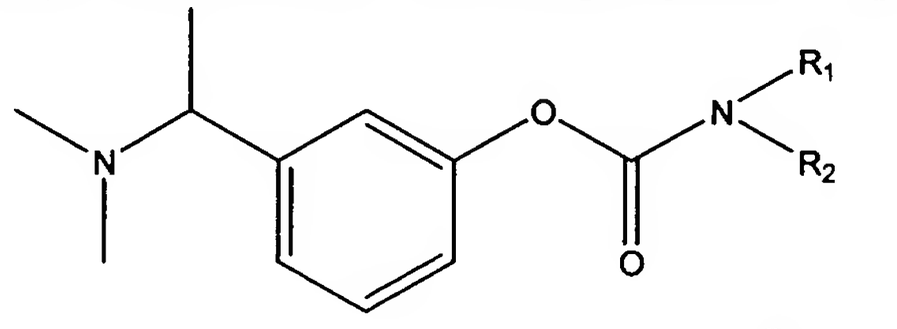
and

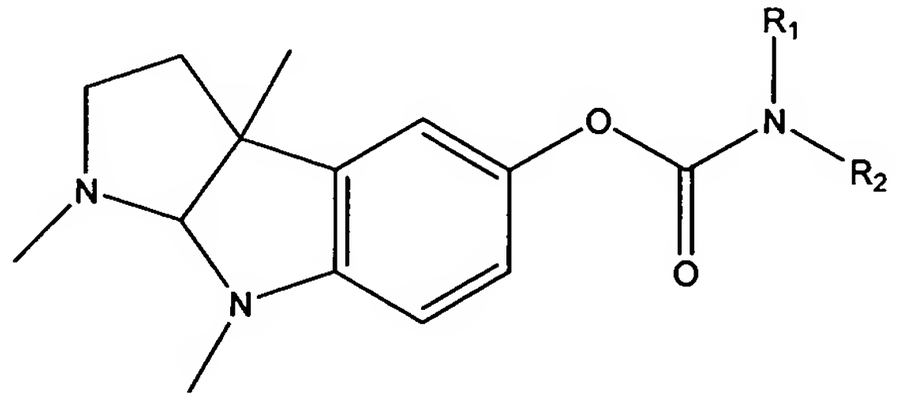


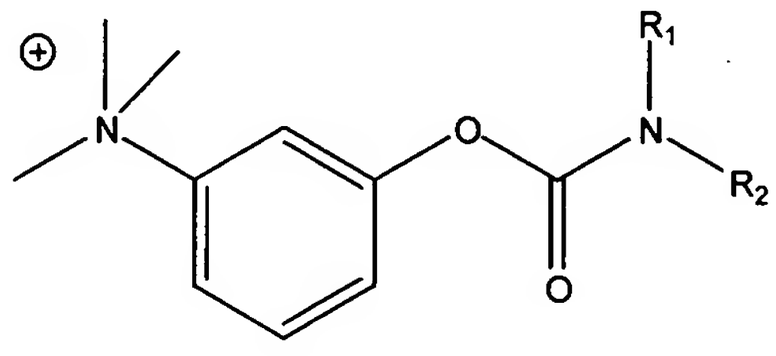
,

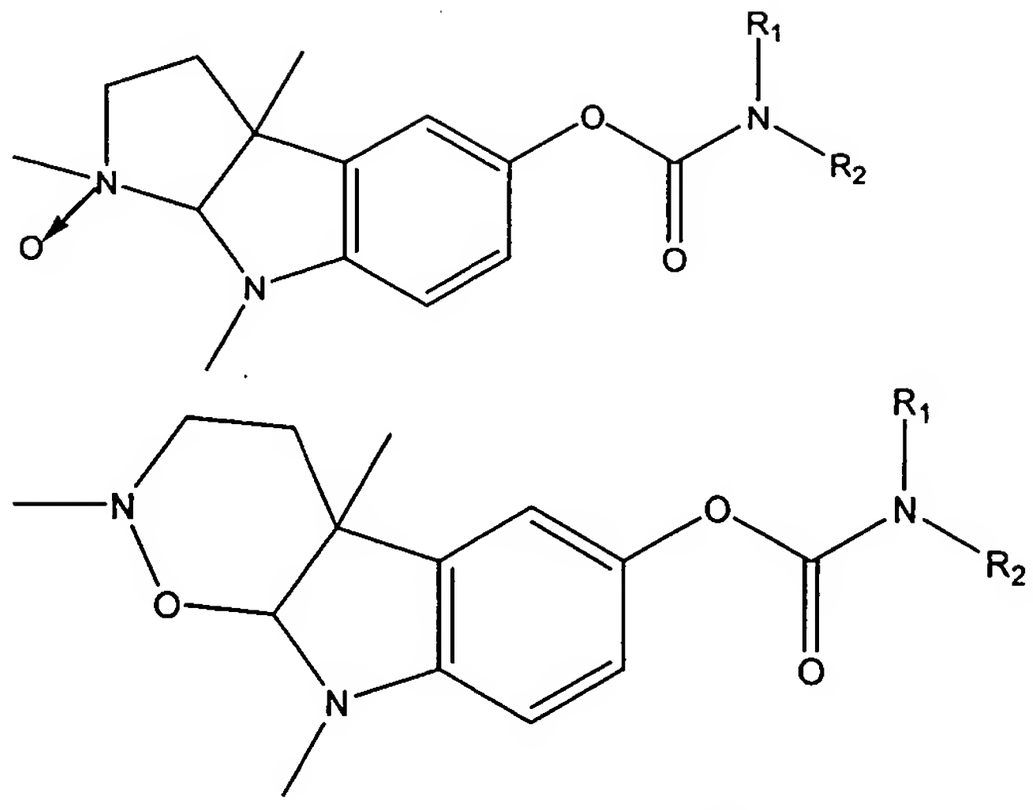
wherein R_3, R_4 and R_5 are each, independently or in combination, selected from the group consisting of a hydrogen, an unsubstituted alkyl, a substituted alkyl, an unsubstituted aralkyl, a substituted aralkyl, an unsubstituted heteroalkyl, a substituted heteroalkyl, an unsubstituted heteroaralkyl, a substituted heteroaralkyl, an unsubstituted aryl, a substituted aryl, an unsubstituted heteroaryl, a substituted heteroaryl, an unsubstituted cycloalkyl, a substituted cycloalkyl, an unsubstituted heterocycloalkyl and a substituted heterocycloalkyl.

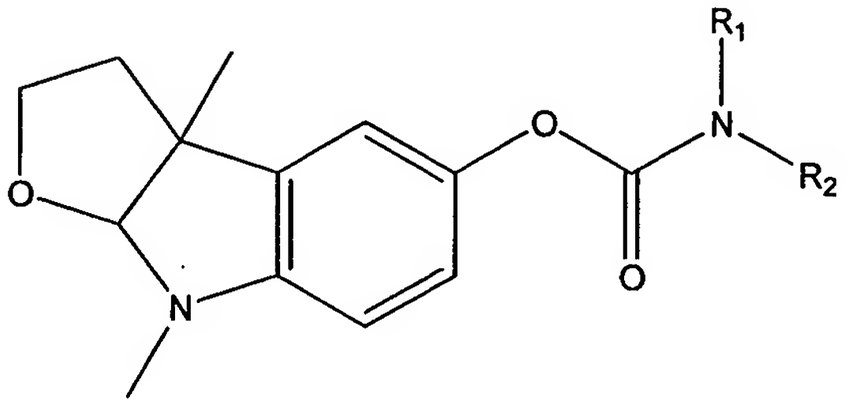
10. (Currently amended) The ~~carbamoyl ester~~ method of Claim 9, wherein the carbamoyl ester is selected from the group consisting of:



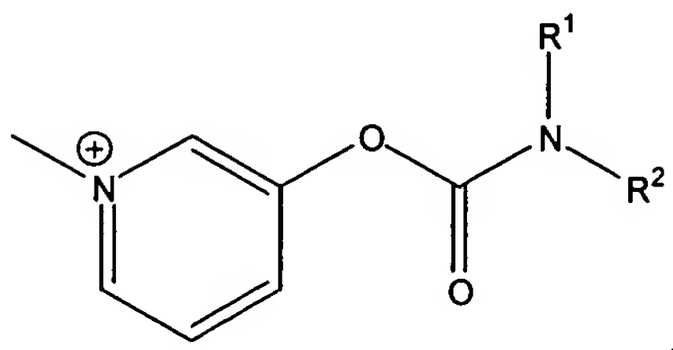






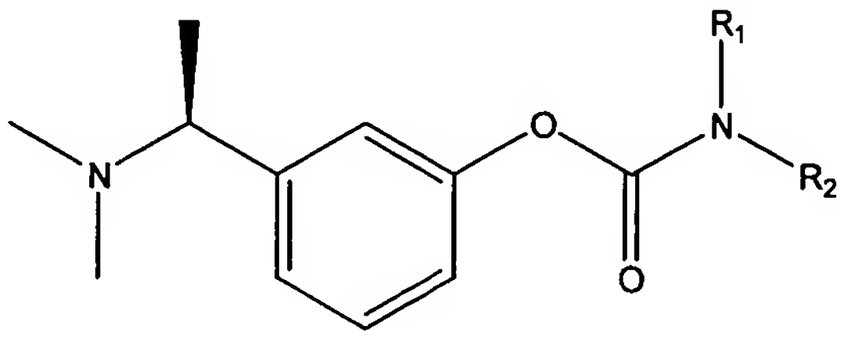


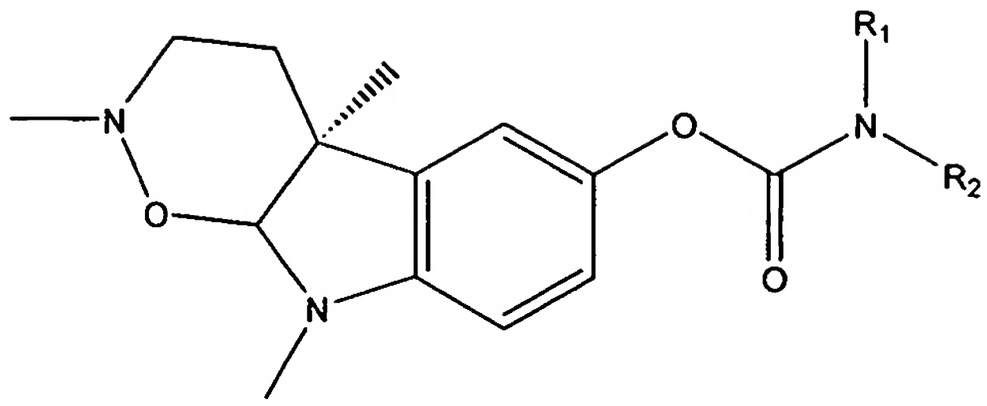
and



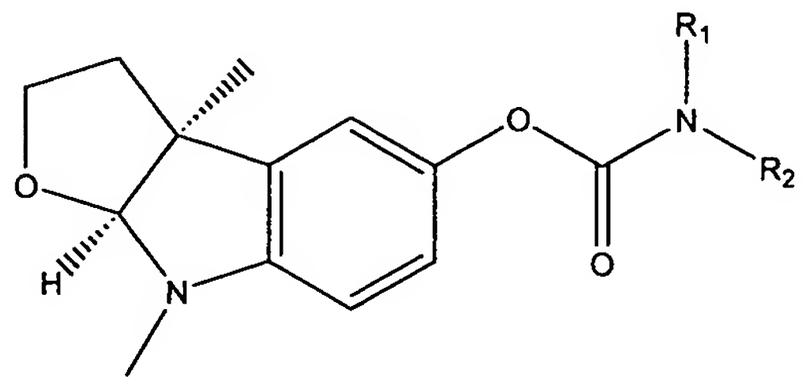
.

11. (Currently amended) The ~~carbamoyl ester~~ method of Claim 10, wherein the carbamoyl ester is selected from the group consisting of:





and



12. (Currently amended) The ~~carbamoyl ester~~ method of Claim ~~1~~25, wherein the pharmacologically active agent is a central nervous system-type pharmacologically active agent.

13. (Currently amended) The ~~carbamoyl ester~~ method of Claim 12, wherein the central nervous system-type pharmacologically active agent is selected from the group consisting of a memory-facilitating agent and a cognition-facilitating agent.

14. (Currently amended) The ~~carbamoyl ester~~ method of Claim ~~1~~25, wherein the pharmacologically active agent is selected from an amphetamine compound and a methamphetamine compound.

15. - 17. (Cancelled)

18. (Currently amended) The ~~carbamoyl ester~~method of Claim ~~17~~26, wherein the cholinergic agent is selected from the group consisting of an acetylcholinesterase inhibitor, a butylrylcholinesterase inhibitor, a cholinergic antagonist, a cholinergic agonist, an allosteric modulator of a cholinergic receptor and an open channel blocker.

19. (Currently amended) The ~~carbamoyl ester~~method of Claim ~~17~~26, wherein the adrenergic agent is selected from the group consisting of an alpha receptor

agonist, a beta receptor agonist, an alpha receptor antagonist and a beta receptor antagonist.

20. (Currently amended) The ~~carbamoyl ester~~method of Claim ~~17~~26, wherein the noradrenergic agent is selected from the group consisting of a norepinephrine re-uptake inhibitor and a norepinephrine releasing agent.

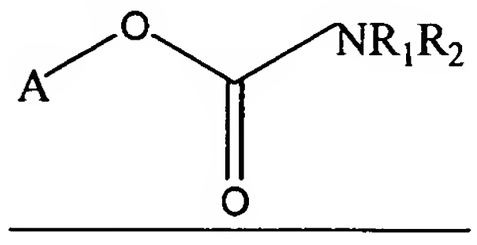
21. (Currently amended) The ~~carbamoyl ester~~method of Claim ~~17~~26, wherein the serotonergic agent is selected from the group consisting a serotonergic antagonist, a serotonergic agonist, a serotonergic re-uptake inhibitor and a serotonin releasing agent.

22. (Currently amended) The ~~carbamoyl ester~~method of Claim ~~17~~26, wherein the glutamatergic agent is selected from the group consisting of an NMDA receptor agonist, an NMDA receptor antagonist, an NMDA glycine site agonist, an NMDA glycine site antagonist, an AMPA receptor agonist and an AMPA receptor antagonist.

23. (Currently amended) The ~~carbamoyl ester~~method of Claim ~~17~~26, wherein the GABAergic agent is selected from the group consisting of a GABA receptor antagonist, a GABA receptor agonist, a benzodiazepine site agonist and a benzodiazepine site antagonist.

24. (Currently amended) The ~~carbamoyl ester~~method of Claim ~~17~~26, wherein the dopaminergic agent is selected from the group consisting of a dopaminergic antagonist, dopaminergic agonist, a dopaminergic re-uptake inhibitor, a dopaminergic releasing agent, dopamine and L-DOPA.

25. (Currently amended) A method of treating an individual having a condition, comprising the step of administering to the individual a carbamoyl ester according to the formula:



wherein:

A is selected from the group consisting of an unsubstituted aryl, a substituted aryl, an unsubstituted heteroaryl and a substituted heteroaryl; and

R_1 and R_2 are each, independently or in combination, selected from the group consisting of a hydrogen, an unsubstituted alkyl, a substituted alkyl, an unsubstituted aralkyl, a substituted aralkyl, an unsubstituted heteroalkyl, a substituted heteroalkyl, an unsubstituted heteroaralkyl, a substituted heteroaralkyl, an unsubstituted aryl, a substituted aryl, an unsubstituted heteroaryl, a substituted heteroaryl, an unsubstituted cycloalkyl, a substituted cycloalkyl, an unsubstituted heterocycloalkyl and a substituted heterocycloalkyl,
wherein the carbamoyl is not (3aS-cis)-1, 2, 3, 3a, 8, 8a-hexahydro,-1, 3a, 8-trimethyl pyrrolo [2, 3-b]-indo-5-ol, 4-pyridinyl carbamate ester, (3aS-cis)-1, 2, 3, 3a, 8, 8a-hexahydro-1, 3a, 8-trimethyl-pyrolo [2, 3-b] indol-5-ol,(2-phenyl) ethyl carbamate ester, (3aS-cis)-1, 2, 3, 3a, 8, 8a-hexahydro-1, 3, 8-trimethyl-pyrolo [2, 3-b] indol-5-ol [1-(1-naphthyl)ethyl] carbamate ester, 7-bromo-(3aS-cis)-1, 2, 3, 3a, 8, 8a-hexahydro-1, 3a, 8-trimethyl pyrrolo [2, 3-b] indol-5-ol, n-heptyl carbamate ester, or a tetrahydroisoquinolinyl carbamate ester;

further wherein the carbamoyl ester inhibits a cholinesterase and ~~includes an amine group that~~, upon hydrolysis of the carbamoyl ester, the amine becomes at least a component of a pharmacologically active agent that treats the ~~individual for a~~ condition of the individual.

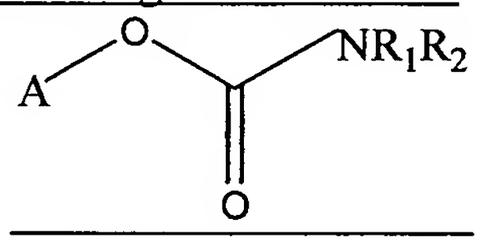
26. (Original) The method of Claim 25, wherein the pharmacologically active agent is at least one member selected from the group consisting of a cholinergic agent, an adrenergic agent, a noradrenergic agent, a dopaminergic agent, a serotonergic agent, a glutamatergic agent, a GABAergic agent, a histaminergic agent, a mono-amine oxidase inhibitor, a COMT inhibitor, a beta secretase inhibitor, a gamma secretase inhibitor, a potassium channel blocker, a calcium channel blocker, an adenosine receptor modulator, a cannabinoid receptor modulator, a nootropic, a neuropeptide pathway modulator, a neurotrophic, a PDE IV inhibitor, a phosphatase/calcineurin inhibitor, a receptor trafficking regulator and a trace amine receptor modulator.

27. (Original) The method of Claim 25, wherein the condition of the individual that is treated by the pharmacologically active agent is at least one condition selected from the group consisting of a central nervous system condition, a peripheral nervous system condition and an autonomic nervous system condition.

28. (Original) The method of Claim 27, wherein the central nervous system condition is at least one condition selected from the group consisting of Parkinson's disease, a memory impairment and a cognitive impairment.

29. (Original) The method of Claim 28, wherein the memory impairment is in a human associated with at least one condition selected from the group consisting of Alzheimer's disease, age-associated memory loss, an impairment in memory consolidation, an impairment in short term memory, mild cognitive impairment and multiple sclerosis.

30. (Currently amended) A method of treating a nervous system condition in an individual, comprising the step of administering to the individual a carbamoyl ester according to the formula:



wherein:

A is selected from the group consisting of an unsubstituted aryl, a substituted aryl, an unsubstituted heteroaryl and a substituted heteroaryl; and

R_1 and R_2 are each, independently or in combination, selected from the group consisting of a hydrogen, an unsubstituted alkyl, a substituted alkyl, an unsubstituted aralkyl, a substituted aralkyl, an unsubstituted heteroalkyl, a substituted heteroalkyl, an unsubstituted heteroaralkyl, a substituted heteroaralkyl, an unsubstituted aryl, a substituted aryl, an unsubstituted heteroaryl, a substituted heteroaryl, an unsubstituted cycloalkyl, a substituted cycloalkyl, an unsubstituted heterocycloalkyl and a substituted heterocycloalkyl,

wherein the carbamoyl is not (3aS-cis)-1, 2, 3, 3a, 8, 8a-hexahydro,-1, 3a, 8-trimethyl pyrrolo [2, 3-b]-indo-5-ol, 4-pyridinyl carbamate ester, (3aS-cis)-1, 2, 3, 3a, 8, 8a-hexahydro-1, 3a, 8-trimethyl-pyrolo [2, 3-b] indol-5-ol,(2-phenyl) ethyl carbamate ester, (3aS-cis)-1, 2, 3, 3a, 8, 8a-hexahydro-1, 3, 8-trimethyl-pyrolo [2, 3-b] indol-5-ol [1-(1-naphthyl)ethyl] carbamate ester, 7-bromo-(3aS-cis)-1, 2, 3, 3a, 8, 8a-hexahydro-1, 3a, 8-trimethyl pyrrolo [2, 3-b] indol-5-ol, n-heptyl carbamate ester, or a tetrahydroisoquinolinyl carbamate ester;

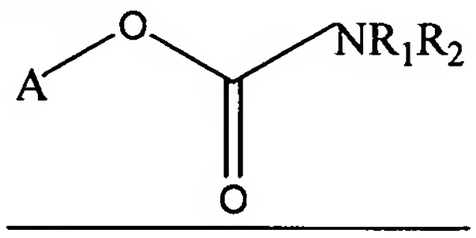
further, wherein the carbamoyl ester inhibits a cholinesterase thereby treating the nervous system condition in the individual and wherein hydrolysis of the carbamoyl ester ~~includes~~ produces an amine group that~~, upon hydrolysis, becomes~~ is at

least a component of a pharmacologically active agent that further treats the nervous system condition in the individual.

31. (Currently amended) ~~A~~ The method of claim 30, wherein said nervous system condition ~~treating~~ is a central nervous system condition ~~in an individual, comprising the step of administering to the individual a carbamoyl ester that inhibits acetylcholinesterase thereby treating the central nervous system condition in the individual, wherein the carbamoyl ester includes an amine group that, upon hydrolysis, becomes at least one component of a pharmacologically active agent, wherein the pharmacologically active agent is selected from the group consisting of an amphetamine compound and a methamphetamine compound, whereby the pharmacologically active agent further treats the central nervous system condition in the individual~~.

32. -33. (Cancelled)

34. (Currently amended) A method of increasing acetylcholine in an individual, comprising the step of administering to the individual a carbamoyl ester, according to the formula:



wherein:

A is selected from the group consisting of an unsubstituted aryl, a substituted aryl, an unsubstituted heteroaryl and a substituted heteroaryl; and

R_1 and R_2 are each, independently or in combination, selected from the group consisting of a hydrogen, an unsubstituted alkyl, a substituted alkyl, an unsubstituted aralkyl, a substituted aralkyl, an unsubstituted heteroalkyl, a substituted heteroalkyl, an unsubstituted heteroaralkyl, a substituted heteroaralkyl, an unsubstituted aryl, a substituted aryl, an unsubstituted heteroaryl, a substituted heteroaryl, an unsubstituted cycloalkyl, a substituted cycloalkyl, an unsubstituted heterocycloalkyl and a substituted heterocycloalkyl,

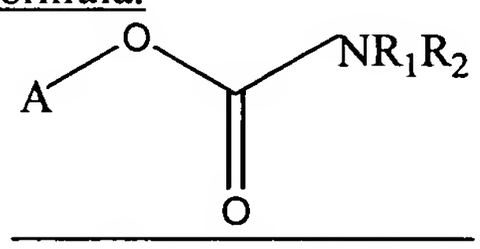
wherein the carbamoyl is not (3aS-cis)-1, 2, 3, 3a, 8, 8a-hexahydro,-1, 3a, 8-trimethyl pyrrolo [2, 3-b]-indo-5-ol, 4-pyridinyl carbamate ester, (3aS-cis)-1, 2, 3, 3a, 8, 8a-hexahydro-1, 3a, 8-trimethyl-pyrolo [2, 3-b] indol-5-ol,(2-phenyl) ethyl carbamate ester, (3aS-cis)-1, 2, 3, 3a, 8, 8a-hexahydro-1, 3, 8-trimethyl-pyrolo [2, 3-b] indol-5-ol [1-(1-naphthyl)ethyl] carbamate ester, 7-

bromo-(3aS-cis)-1, 2, 3, 3a, 8, 8a-hexahydro-1, 3a, 8-trimethyl pyrrolo [2, 3-b] indol-5-ol, n-heptyl carbamate ester, or a tetrahydroisoquinolinyl carbamate ester;

wherein the carbamoyl ester inhibits a cholinesterase, thereby increasing acetylcholine and hydrolysis of the carbamoyl ester produces ~~includes~~ an amine group that~~, upon hydrolysis, becomes~~ is at least a component of a pharmacologically active agent that further increases acetylcholine in the individual.

35. (Currently amended) ~~A~~ The method of claim 34, ~~increasing acetylcholine in an individual, comprising the step of administering to the individual a~~ wherein said carbamoyl ester ~~that~~ inhibits acetylcholinesterase, thereby increasing acetylcholine in the individual, further wherein the ~~carbamoyl ester includes an amine group that, upon hydrolysis, becomes at least one component of a pharmacologically active agent, wherein the~~ pharmacologically active agent is selected from the group consisting of an amphetamine compound and a methamphetamine compound.

36. (Currently amended) A method of treating a cholinergic deficiency in an individual, comprising the step of administering to the individual a carbamoyl ester according to the formula:



wherein:

A is selected from the group consisting of an unsubstituted aryl, a substituted aryl, an unsubstituted heteroaryl and a substituted heteroaryl; and

R_1 and R_2 are each, independently or in combination, selected from the group consisting of a hydrogen, an unsubstituted alkyl, a substituted alkyl, an unsubstituted aralkyl, a substituted aralkyl, an unsubstituted heteroalkyl, a substituted heteroalkyl, an unsubstituted heteroaralkyl, a substituted heteroaralkyl, an unsubstituted aryl, a substituted aryl, an unsubstituted heteroaryl, a substituted heteroaryl, an unsubstituted cycloalkyl, a substituted cycloalkyl, an unsubstituted heterocycloalkyl and a substituted heterocycloalkyl,

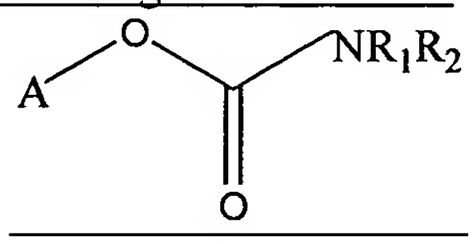
wherein the carbamoyl is not (3aS-cis)-1, 2, 3, 3a, 8, 8a-hexahydro,-1, 3a, 8-trimethyl pyrrolo [2, 3-b]-indo-5-ol, 4-pyridinyl carbamate ester, (3aS-cis)-1, 2, 3, 3a, 8, 8a-hexahydro-1, 3a, 8-trimethyl-pyrolo [2, 3-b] indol-5-ol,(2-phenyl) ethyl carbamate ester, (3aS-cis)-1, 2, 3, 3a, 8, 8a-hexahydro-1, 3, 8-

trimethyl-pyrolo [2, 3-b] indol-5-ol [1-(1-naphthyl)ethyl] carbamate ester, 7-bromo-(3aS-cis)-1, 2, 3, 3a, 8, 8a-hexahydro-1, 3a, 8-trimethyl pyrrolo [2, 3-b] indol-5-ol, n-heptyl carbamate ester, or a tetrahydroisoquinolinyl carbamate ester;

~~,~~wherein the carbamoyl ester inhibits a cholinesterase thereby treating the cholinergic deficiency in the individual, and wherein hydrolysis of the carbamoyl ester ~~includes~~ produces an amine group that~~, upon hydrolysis, becomes~~ is at least a component of a pharmacologically active agent that further treats the cholinergic deficiency in the individual.

37. (Original) The method of Claim 36, wherein the cholinergic deficiency in the individual is Alzheimer's disease.

38. (Currently amended) A method of treating an impairment in memory in an individual, comprising the step of administering to the individual a carbamoyl ester according to the formula:



wherein:

A is selected from the group consisting of an unsubstituted aryl, a substituted aryl, an unsubstituted heteroaryl and a substituted heteroaryl; and

R_1 and R_2 are each, independently or in combination, selected from the group consisting of a hydrogen, an unsubstituted alkyl, a substituted alkyl, an unsubstituted aralkyl, a substituted aralkyl, an unsubstituted heteroalkyl, a substituted heteroalkyl, an unsubstituted heteroaralkyl, a substituted heteroaralkyl, an unsubstituted aryl, a substituted aryl, an unsubstituted heteroaryl, a substituted heteroaryl, an unsubstituted cycloalkyl, a substituted cycloalkyl, an unsubstituted heterocycloalkyl and a substituted heterocycloalkyl,

wherein the carbamoyl is not (3aS-cis)-1, 2, 3, 3a, 8, 8a-hexahydro,-1, 3a, 8-trimethyl pyrrolo [2, 3-b]-indo-5-ol, 4-pyridinyl carbamate ester, (3aS-cis)-1, 2, 3, 3a, 8, 8a-hexahydro-1, 3a, 8-trimethyl-pyrolo [2, 3-b] indol-5-ol,(2-phenyl) ethyl carbamate ester, (3aS-cis)-1, 2, 3, 3a, 8, 8a-hexahydro-1, 3, 8-trimethyl-pyrolo [2, 3-b] indol-5-ol [1-(1-naphthyl)ethyl] carbamate ester, 7-bromo-(3aS-cis)-1, 2, 3, 3a, 8, 8a-hexahydro-1, 3a, 8-trimethyl pyrrolo [2, 3-b] indol-5-ol, n-heptyl carbamate ester, or a tetrahydroisoquinolinyl carbamate ester;

~~,~~wherein the carbamoyl ester inhibits a cholinesterase thereby treating the impairment in memory in the individual, and wherein hydrolysis of the carbamoyl ester ~~includes~~ produces an amine group that~~, upon hydrolysis, becomes~~ is at least a component of a pharmacologically active agent that further treats the impairment in memory in the individual.

39. (Original) The method of Claim 38, wherein the impairment in memory in the individual is at least one member selected from the group consisting of an impairment in memory consolidation, an impairment in long-term memory and an impairment in short-term memory.

40. (Original) The method of Claim 38, wherein the individual is a human.

41. (Currently amended) The method of Claim [[40]]38, wherein the impairment in memory is associated with at least one condition selected from the group consisting of Alzheimer's disease, age-associated memory loss, mild cognitive impairment and multiple sclerosis.

42. (Original) The method of Claim 38, wherein the pharmacologically active agent is an amphetamine compound.

43. (Cancelled)

44. (Currently amended) The method of Claim 3842, wherein the pharmacologically active agent is a methamphetamine compound ~~is a methamphetamine~~.

45. -53 (Cancelled)